

ABSTRACT OF THE DISCLOSURE

MANUFACTURING PROCESS FOR A REFRACTORY MATERIAL,
PROTECTIVE COATING THAT CAN BE OBTAINED WITH THIS
PROCESS AND USES OF THIS PROCESS AND THIS COATING

5 This invention relates to a process for manufacturing a refractory material, a protective coating, and uses of this process and this coating.

 The process comprises the following steps:

10 a) deposit on the surface of a substrate or in a mould a first dispersion containing at least one metallic compound chosen from among borides, carbides and borocarbides containing at least one transition metal, in powder form, and a resin with a coke mass content equal to at least 30% after carbonization; b) dry the
15 resulting deposit; c) cross-link the resin; d) carbonize the resin under an inert atmosphere; e) cover the deposit with a second dispersion containing Si in powder form and a binder; f) heat the deposit to a temperature greater than or equal to the melting
20 temperature of Si, under an inert atmosphere.

 Applications: manufacture of propulsion parts and fuselage and wing elements for aerospace and aeronautical applications; manufacture of heat exchangers for thermal power stations; metallurgy;
25 chemical industry; etc.